

Entry Approved  
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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Withdrawn) A method for measuring a parameter of a target, the method comprising:
  - transmitting at least one signal towards a target;
  - receiving at least one of a return signal sent in response to a detection of the transmitted signal at the target and at least a portion of the transmitted signal back from the target;
  - sampling at least one portion of the received signal;
  - using a discrete Fourier transform to determine at least one of an amplitude of the sampled signal and a phase of the sampled signal; and
  - determining a measured parameter based on at least one of the determined amplitude of the sampled signal and the phase of the sampled signal.
2. (Withdrawn) The method as set forth in claim 1 wherein the discrete Fourier transform is a fast Fourier transform.
3. (Withdrawn) The method as set forth in claim 1 wherein the measured parameter is a distance to the target.
4. (Withdrawn) The method as set forth in claim 1 wherein the measured parameter is reflectivity of the target.
5. (Withdrawn) The method as set forth in claim 1 wherein the measured parameter is a velocity of the target.
6. (Withdrawn) The method as set forth in claim 1 further comprising generating a signal for the transmitting.
7. (Withdrawn) The method as set forth in claim 6 further comprising filtering the generated signal, wherein the filtering generates a sinusoidal signal for the transmitting.